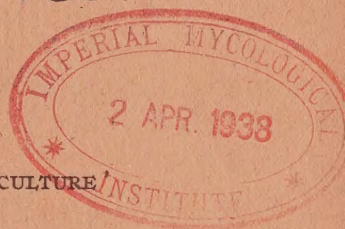


INTERNATIONAL INSTITUTE OF AGRICULTURE

INTERNATIONAL BULLETIN OF PLANT PROTECTION

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ROME
VILLA UMBERTO I
1938

INTERNATIONAL INSTITUTE OF AGRICULTURE

PLANT PROTECTION SECTION

Chief of Section : Professor Dr. GIULIO TRINCHIERI.

Redactor : Dr. NORBERT VON GESCHER.

IN THE PRESS:—

LA LÉGISLATION DU COMMERCE DES PLANTES

(PUBLISHED IN FRENCH ONLY)

This new edition (second) is considerably more complete than the preceding one. In fact, the volume in preparation includes 60 countries instead of 37, and it may be said that it is truly universal. The countries dealt with are the following in French alphabetical order: Germany, Argentina, Commonwealth of Australia, Belgium, Belgian Congo, Brazil, Bulgaria, Canada, Costa-Rica, Denmark, Egypt, Estonia, United States of America, Porto-Rico, Finland, France, French Equatorial Africa, French West Africa, Algeria, Indo-China, Morocco, Tunis, United Kingdom, Scotland, Ceylon, Gold Coast, Jamaica, Kenya, British Malaya, Palestine, Southern Rhodesia, Tanganyika, Greece, Guatemala, Haiti, Hungary, India, Iran, Ireland, Italy, Eritrea, Somalia, Japan, Lithuania, Luxemburg, Mexico, Norway, Netherlands, Netherlands Indies, Nicaragua, Poland, Portugal, Romania, Sweden, Switzerland-Czechoslovakia, Turkey, U. S. S. R., Union of South Africa, Uruguay, Yugoslavia.

IN THE PRESS:—

FARM ACCOUNTANCY STATISTICS FOR 1934-35

The reproduction either in whole or in part of material printed in this Bulletin is permitted but only on the express condition that the source is duly acknowledged as follows:— *International Bulletin of Plant Protection (International Institute of Agriculture)*.

NOTES ON THE INTERNATIONAL INSTITUTE OF AGRICULTURE

Permanent Committee (March Meeting 1938). — The first meeting of 1938 of the Permanent Committee of the Institute commenced on Monday 21 March at 10 a. m. and continued during the following days.

During this meeting the Permanent Committee—in addition to the usual questions—the Secretary General's Report on the Services and Administration, Financial and Staff matters—examined the following questions: last arrangements for the General Assembly of 1938; question of the creation of an International Forestry Centre within the frame work of the International Institute of Agriculture; report of the second Conference of Agricultural Statisticians for the study of the programme of the World Agricultural Census of 1940; report of the Commission of Experts on the work of the Institute in horticulture; report of the Commission of Experts on the work of the Institute in tropical and subtropical agriculture; report on the participation of the Institute in the first meeting of the Permanent Agricultural Commission of the International Labour Office; decisions concerning the meeting at the Institute of the Joint Agricultural Advisory Commission; results of the consultation of the Governments on the subject of international agreements covering wine records and denomination of wines; results of the consultation of the Governments on the subject of the report of the small Commission of Cereal Chemists.

General Assembly (May 1938). — The programme of the XIVth General Assembly of the International Institute of Agriculture has been established by the Permanent Committee at its December 1937 session, and is as follows:—

- (A) *Questions placed on the Agenda paper of the Assembly by the Permanent Committee:* (1) General Statement by the President of the Permanent Committee; (2) Report of the General Secretary on the Services and Administration of the Institute; (3) Report of the Permanent Committee on the Financial Position; (4) The • Instability of Farmers' Earnings and the means of stabilizing them; (5) Rôle of the Radio and Cinema in the Technical Vocational and Social Training of Farmers, and in supplying information for consumers; (6) Rôle of the International Institute of Agriculture in the Study of the Nutrition Problem; (7) Enquiry into the means of carrying out a World Survey of Agricultural Resources.

(B) *Questions placed on the Agenda paper of the Assembly at the request of the Governments:* (8) Influence of Industrial Inventions upon Agriculture and the Marketing of Agricultural Products (Raw Materials). (Item submitted and Report by the Royal Netherlands Government); (9) Hygiene in nutrition and Agriculture. (Item submitted and Report by the French Government); (10) Publication by the International Institute of Agriculture of information on the measures taken in the various countries for the improvement of the position of small farmers. (Item submitted and Report by the Government of Finland); (11) Intensification of the activity of the International Institute of Agriculture regarding studies on Agricultural Cooperation. (Item submitted and Report by the Government of Finland); (12) The question of Unemployment in Agriculture. (Item submitted and Report by the Polish Government).

The above Agenda paper shows the keen interest which the Governments have taken in the work of the next General Assembly, in many cases asking for the insertion of several important questions.

Conferences and Congresses. — IIIrd Conference of the International Committee for the collective study of the control of the Colorado beetle. This Conference took place in Zurich on 3, 4 and 5 March 1938, with the presence of official delegations from Germany, Belgium, France, Italy, Luxembourg, the Netherlands and Switzerland, and also a technical representative from the International Institute of Agriculture.

An official summary of the decisions adopted by this Conference will appear as soon as possible in the *International Bulletin of Plant Protection*.

Here are some international meetings which will take place shortly: Xth International Congress of Chemistry, Rome, 15-21 May 1938; IVth International Conference on the utilization of timber, Vienna, July 1938; International Congress of Technical Instruction, Berlin, 25-29 July 1938; XIIth International Congress of Horticulture, Berlin 12-17 August 1938; VIIth International Congress of Entomology, Berlin, 15-20 August 1938.

Permanent Agricultural Commission of the International Labour Office. — The Permanent Committee of the Institute having been informed of the setting up of a Permanent Agricultural Commission at the International Labour Office, decided at its meeting of December 1937, to send a delegation, consisting of the following: Messrs: Acerbo, President, van Rijn, Vice-President, Marquis, Augé Laribé, Mikulski and Porn. Mr. Golay, Counsellor in the General Secretariat, accompanied the delegation.

The meetings of the Commission took place at Geneva from 7 to 15 February 1938. A report on the Institute's part in this first meeting of the Permanent Agricultural Commission of the International Labour Office was distributed to the Permanent Committee of the Institute (March meeting 1938).

World Agricultural Census. — The International Institute of Agriculture, which had already organized the first World Agricultural Census in 1930, is on the point of completing the programme of the second Census which will be held in 1940.

For this purpose, it called a meeting, in December last, of a Conference of Agricultural Statisticians, comprising representatives from the majority of European countries and their colonies, several countries of the other continents, the Secretariat of the League of Nations and the International Labour Office. The programme established upon the suggestions of this Conference will be sent to the Governments of all the countries in the world, to be put into action, according to the special conditions pertaining in each country, during the year 1940.

The object of this Census is to have the most correct and precise data possible on agricultural production, and more generally, agricultural and rural economy in the different countries of the earth.

A correct, precise and complete knowledge of the conditions of agriculture, its situation and tendencies, is indispensable in all countries for the formulating of their economic policy. This knowledge is the basis of all legislation concerning markets and trade in agricultural products, of all social or economic laws concerning agriculture and farmers. A misunderstanding or an incorrect knowledge of the general conditions of agriculture may lead, in this sphere, to serious mistakes.

Looking beyond its own frontiers, each country is also interested in knowing what is the situation of agriculture in neighbouring countries and in the nations with which it has economic and trade relations. It needs this information so as to

direct its exchanges and its economic policy, also for comparing its own situation and the status of its agriculture with that of other countries.

The basis of this knowledge, both from the internal point of view and for comparison between countries, is a good periodical documentation with regard to the agricultural use of the soil and all the conditions which directly characterize its utilization and its vegetable or animal production.

These considerations had already brought a certain number of countries to make agricultural enquiries, at more or less regular intervals, but these enquiries were made at unequal periods, and on quite different plans. The International Institute of Agriculture has considered that it would be of the highest interest to coordinate them.

The programme drawn up by the Institute has the purpose of bringing about this absolutely indispensable coordination from the international point of view.

The 1930 Census has already given, in this respect, very valuable results. The 1940 Census must, without any doubt, mark new progress, and the International Institute of Agriculture has not spared its efforts to make this so. It considers however, that the success of the IIInd Census depends equally on the collaboration of the Governments and very strongly, on the collaboration of agronomists, technicians and practical workers, of all countries.

Wheat Sowings and the World Wheat Outlook. (*Press communiqué of March 1938*).

— The International Institute of Agriculture considers, on the basis of the information received up to mid-February, that the area sown to winter wheat in the northern hemisphere is almost as large as that sown last year which was the largest recorded. The Institute also reports that the sown area is particularly extensive, with few exceptions in the surplus producing countries, including, in particular, the United States, the U. S. S. R. and the Danube countries. The area of winter sowings in this group of countries is apparently at least as large as the second area of last year and much above the average of the years 1932 to 1936.

Reviewing the position of sowings and the present market situation, the International Institute of Agriculture considers that if the spring area in North America and the U. S. S. R. and the sowings in the southern hemisphere are not considerably smaller, a very unlikely result, and if the average yield is not substantially below normal, the coming commercial year will be marked by rather considerable over production and an unstable position on the world wheat market.

At present all that can be said on the outlook, is that the condition of the winter crops is rather uneven in the United States, but generally satisfactory in Europe, the U. S. S. R., India and North Africa.

LIST OF PUBLICATIONS

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INTERNATIONAL INSTITUTE OF AGRICULTURE

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VILLA UMBERTO I

ROME (ITALY)

PUBLICATIONS OF THE INTERNATIONAL INSTITUTE OF AGRICULTURE

IN THE PRESS:—

FORÊTS PRIVÉES

(FRENCH EDITION ONLY)

Management - Financial status - Reafforestation of uncultivated lands - Forestry Propaganda

Vol. I: EUROPE

The monograph on privately owned forests contains all the important legislative measures in force in the countries with regard to forests belonging to private persons, the measures of Government intervention in the management of these forests and all forms of tax assessment affecting private forests; Government policy concerning afforestation or reafforestation of uncultivated lands belonging to private owners, (purchase and afforestation of these lands by the State or by other communities, or encouragement given to the owners to convert into forests; associations of individuals for the purpose of afforestation of incultivated lands, measures taken by the Governments to encourage owners to plant trees themselves; species of timber; methods of plantation and forestry systems at present preferred by the private owners, themselves carrying out afforestation; propaganda for forests among the general public.

This first volume, which will come out during the first half of 1938, deals with the conditions in European countries (30 countries); the second volume will deal with those in other continents.

JUST OUT:—

INVESTIGATIONS INTO THE MARGIN BETWEEN PRODUCERS' AND CONSUMERS' PRICES OF CERTAIN FOODSTUFFS

(PRICE: 10 lire)

This is the first volume of the series of the Institute's Contributions to the Study of the Problem of Nutrition, undertaken in response to the initiative of the League of Nations (Mixed Committee on the Problem of Nutrition).

The present Report, in Part I, contains a brief general survey of the problem in its various aspects on the basis of the information collected and studied for a certain number of countries. Part II of the Report contains an exposition of the inquiries made and of the results obtained in the investigation of price spreads in the different countries. The countries for which it has been possible to collect and to present information are Austria, Canada, Denmark, Finland, France, Germany, the Netherlands, Norway, Poland, Switzerland, the United Kingdom and the United States.

It is hoped that, though the material available is rather scarce, and is somewhat lacking in uniformity, this inquiry will throw some light upon a highly important problem, which, though often discussed, has seldom been thoroughly investigated.

The radio communiqués of the International Institute of Agriculture will be transmitted between 2.45 and 2.52 p. m. on the following days: Thursday, English and German; Saturday, Spanish; Tuesday, Italian and French.

They will be broadcast from Rome II (245.5 m.) and Rome 2 RO 4 (25.4 m.).

The hour of broadcasts is in Central European Time, which is one hour ahead of Greenwich Mean Time, and 5 hours ahead of Eastern Standard Time in the United States.

INTERNATIONAL BULLETIN OF PLANT PROTECTION

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No. 3

[RAM, XVII, 506]

DISCOVERIES AND CURRENT EVENTS *

Brazil: Diseases of Cultivated or Useful Plants, Observed in the State of São Paulo †

This is the second part of the list of the diseases of cultivated or useful plants studied at the Laboratory of Plant Pathology of the Institute of Biology, São Paulo from 1931 to 1936 (see this *Bulletin*, 1937, No. 12, pp. 269-275).

The recognition of the parasites and diseases here enumerated was made by the author of the present communication and also by Messrs. Raul Drummond Gonçalves, João G. Carneiro and Spencer C. Arruda, assistants in the aforesaid Institute.

PAPAW

Mycosphaerella caricae Syd.
Helminthosporium caricae Syd.
Oidium sp.

Mosaic

Virus.

WATERMELON

Pseudoperonospora cubensis (B. and C.) Rost.
Colletotrichum lagenarium (Pass.) Ell. and Halst.

PEACH

Phyllosticta circumscissa Cke.
Taphrina deformans (Berk.) Tul.
Tranzschelia punctata Arth.
Cladosporium carpophilum Thüm.
Valsa leucostoma (Pers.) Fr.

PARSLEY

Septoria petroselinii Desm.

* Under this and the next heading the countries are arranged in French alphabetical order.

† Communication from the official correspondent of the Institute, Mr. AGESILAU A. BITANCOURT, Assistant Director of the Institute of Biology, Ministry of Agriculture, Industry and Commerce, São Paulo, Brazil.

POPLAR	<i>Uredo</i> sp. <i>Sphaceloma populi</i> (Sacc.) Denk.
PEPPER	<i>Puccinia paulensis</i> Rangel. <i>Cercospora capsici</i> H. W. <i>Cercospora rugosospora</i> Atk.
PEAR	<i>Corticium koleroga</i> (Cke.) v. Höhn. <i>Phyalospora malorum</i> (Pk.) Shear. <i>Cytospora microspora</i> (Corda) Rabenh. <i>Corticium</i> sp. <i>Gloeodes pomigena</i> Colby. <i>Leptothyrium pomi</i> (Mont. and Fr.) Sacc. <i>Stilbum cinnabarinum</i> Mont. <i>Botrytis cinerea</i> Pers. <i>Pezizotrichum saccardianum</i> Rangel.
PEA	<i>Erysiphe polygoni</i> DC. <i>Ascochyta pisi</i> Lib.
POTATO	<i>Phytophthora infestans</i> (Mont.) de Bary. <i>Alternaria solani</i> (Ell. and Mart.) Jones and Grout. <i>Bacterium solanacearum</i> E. F. S. <i>Bacillus phytophthorus</i> Appel. Virus.
Leafroll, mosaic, etc.	
APPLE TREE	<i>Corticium salmonicolor</i> B. and Br. <i>Podosphaeria leucotricha</i> (E. and E.) Salm. <i>Corticium koleroga</i> (Cke.) v. Höhn. <i>Cercospora mali</i> E. and E.
CASHEW NUT	<i>Oidium</i> sp. <i>Verticillium</i> sp.
PUMPKIN	<i>Erysiphe cichoracearum</i> DC.
PLUM TREE	<i>Gloeodes pomigena</i> Colby. <i>Leptothyrium pomi</i> (Mont. and Fr.) Sacc. <i>Cercospora cerasella</i> Sacc.
SATZUMA PLUM	<i>Entomosporium mespili</i> (DC.) Sacc.
HORSE RADISH	<i>Peronospora parasitica</i> (P.) Fr. <i>Albugo candida</i> (Pers.) Kuntze.
RHUBARB	<i>Phytophthora parasitica</i> var. <i>rhei</i> Dastur.
CASTOR OIL PLANT	<i>Cercospora ricinella</i> Sacc. <i>Sclerotinia ricini</i> Godf.
RICE	<i>Piricularia oryzae</i> Br. and Cav.

ROSE	<i>Phragmidium subcorticium</i> (Schr.) Wint. <i>Sphaerotheca pannosa</i> (W.) Lév. <i>Diplocarpon rosae</i> Wolf. <i>Mycosphaerella rosigena</i> E. and E. <i>Cercospora rosicola</i> Pass. <i>Sphaceloma rosarum</i> Jenk.
SOYA BEAN	<i>Bacterium glycineum</i> Coerper.
SORGHUM	<i>Cladosporium graminum</i> Link. <i>Puccinia purpurea</i> Cke.
TOBACCO	<i>Fusarium</i> sp. <i>Cercospora nicotianae</i> E. and E. Virus. Virus.
TOMATO	<i>Septoria lycopersici</i> Speg.
Annular marks on fruits	Virus.
GRAPE VINE	<i>Plasmopara viticola</i> (B. and C.) Berl. and De Toni. <i>Sphaceloma ampelinum</i> De Bary. <i>Cercospora viticola</i> (Ces.) Sacc. <i>Botrytis cinerea</i> Pers. <i>Melanconium fuligineum</i> (Scrib. and Viala) Cav. <i>Coniothyrium diplodiella</i> (Speg.) Sacc.
VIOLET	<i>Alternaria violae</i> G. and D.
<i>Annona squamosa</i>	<i>Diplodia natalensis</i> Ev.
<i>Araucaria brasiliana</i>	<i>Polyrhizon</i> sp.
<i>Bixa orellana</i>	<i>Oidium</i> sp.
<i>Canavalia ensiformis</i>	<i>Oidium</i> sp. <i>Ascochyta</i> sp. <i>Botrytis cinerea</i> Pers. Virus.
Mosaic	
<i>Canna indica</i>	<i>Puccinia cannae</i> P. Henn.
<i>Cedrela glaziovii</i>	<i>Phyllachora balansae</i> Speg.
<i>Colocasia antiquorum</i>	<i>Cladosporium</i> sp.
<i>Crotalaria juncea</i>	<i>Ceratostomella fimbriata</i> Elliott.
<i>Digitaria sanguinalis</i>	<i>Piricularia oryzae</i> Br. and Cav.
<i>Dioscorea batatas</i>	<i>Cercospora carbonacea</i> L. E. Miles.

- | | |
|----------------------------------|---|
| <i>Echinocactus multicosatus</i> | <i>Diplodia natalensis</i> Ev. |
| <i>Eugenia brasiliensis</i> | <i>Mycosphaerella</i> sp. |
| <i>Ficus luschnathiana</i> | <i>Fusicladium</i> sp. |
| <i>Genipa americana</i> | <i>Sphaceloma</i> sp. |
| <i>Gerbera</i> sp. | <i>Alternaria</i> sp. |
| <i>Hovenia dulcis</i> | <i>Cercospora</i> sp. |
| <i>Hyparrhenia rufa</i> | <i>Cerebella andropogonis</i> Ces. |
| <i>Machaerium stipitatum</i> | <i>Catacauma hammari</i> (P. Henn.) Th. and Syd. |
| <i>Malva parviflora</i> | <i>Puccinia malvacearum</i> Bert. |
| <i>Marliera edulis</i> | <i>Puccinia cambucae</i> Putt. |
| <i>Myrciaria jaboticaba</i> | <i>Asterinella puiggarii</i> (Speg.) Syd. |
| | <i>Phyllosticta</i> sp. |
| | <i>Puccinia rochae</i> Putt. |
| <i>Nectandra tweedii</i> | <i>Drepaconis larviformis</i> Speg. |
| <i>Panicum barbinode</i> | <i>Nigrospora panici</i> Zimm. |
| <i>Paspalum dilatatum</i> | <i>Claviceps paspali</i> Stev. and Hall. |
| <i>Paspalum millegranum</i> | <i>Physoderma</i> sp. |
| <i>Paspalum urvillei</i> | <i>Colletotrichum cereale</i> Manns. |
| <i>Passiflora edulis</i> | <i>Cladosporium</i> sp. |
| <i>Phyllocalyx laevigatus</i> | <i>Puccinia</i> sp. |
| <i>Piper hydrangeifolium</i> | <i>Cercospora piperis</i> Pat. |
| <i>Podocarpus lambertii</i> | <i>Corynella brasiliensis</i> Fitzp. |
| <i>Rubus</i> sp. | <i>Kuehneola loesneriana</i> (P. Henn.) Jack. |
| <i>Sporobolus tenacissimus</i> | <i>Helminthosporium ravenelii</i> Curt. and Berk. |
| <i>Stenotaphrum americanum</i> | <i>Piricularia oryzae</i> Br. and Cav. |
| <i>Stizolobium aterrimum</i> | <i>Cercospora stizolobii</i> Syd. |
| <i>Terminalia catappa</i> | <i>Sphaceloma</i> sp. |
| <i>Tecoma</i> spp. | <i>Apiosphaeria guaranitica</i> (Speg.) Syd. |
| <i>Tibouchina</i> sp. | <i>Bagnisiopsis</i> sp. |
| <i>Yucca filamentosa</i> | <i>Colletotrichum circinans</i> (B.) Vogl. |

Fungus parasites of insect pests:—

Aschersonia aleyrodis Weber.
Asch. basicystis B. and C.
Asch. goldiana Sacc. and Allis.
Myriangium duriaei Mont.
Podonectria aurantii. (v. H.) Petch.
Pod. coccicola (E. and E.) Petch.
Sphaerostilbe flammea Tul.
Cephalosporium lecanii Zimm.
Cladosporium aphidis Thüm.

United States of America: *Cephalosporium* Wilt of Persimmon *

What appears to be a new disease of persimmon (*Diospyros virginiana* L.) has been found in central Tennessee scattered through an area of some 1500 square miles. According to Bowen S. Grandall and Ross W. Davidson, who are studying the disease, 50 per cent. of the persimmon stands in this area contain infected trees. The external symptoms are typical of a vascular infection causing wilt. The internal symptoms consist of black streaks running through the wood. From such streaks, a single fungus, *Cephalosporium* sp., has been consistently isolated. Persimmons occur usually throughout the area in pure stands in abandoned fields. When introduced into one of these stands the disease spreads rapidly from tree to tree. The area where the first infection occurred probably in 1933 or 1934, as far as can be determined by circumstantial evidence and reports of residents, now contain no living trees. In adjacent areas 80 per cent. of the trees are dead and the remainder infected.

Ireland: First Appearance of Downy Mildew of Hop (*Pseudoperonospora humuli*) †

This disease was found for the first time on the dried cones of a so-called wild hop which had been grown experimentally at Clonakilty, Co. Cork. The material showed typical conidiophores, conidia and oospores of the parasite.

The outbreak presents a number of points of interest. This disease was first found in Europe in 1920, since when it has spread to most European countries. The hop is not cultivated in Ireland, but so-called wild hops occur, which are escapes from cultivation in the distant past, and these have never shown the disease up to the present. Cultivated hops were again introduced experimentally in 1935, and were grown under strict supervision along with the na-

* Communication from the official correspondent of the Institute, Mr. H. A. EDSON, Principal Pathologist in Charge, Division of Mycology and Disease Survey, Bureau of Plant Industry, United States Department of Agriculture, Washington.

† Communication from the official correspondent of the Institute, Professor PAUL A. MURPHY, Sc. D., A. R. C. Sc. I., Albert Agricultural College, Glasnevin, Dublin, Ireland.

tive 'wild' hop in six small experimental plots in 1935, 1936 and 1937. All the crops remained healthy until 1937, when an attack of downy mildew occurred at the Clonakilty centre, apparently late in the season, as described. It is concluded that the plants imported in 1935 were not the source of the disease, since they remained healthy until 1937, and no further plants were introduced subsequently. Neither did the wild hop bring the disease to Clonakilty because the plant from which it was derived at Glasnevin has never shown downy mildew.

The most likely explanation is that the disease was disseminated through the air by means of conidia from the nearest centre of hop cultivation in England, some 265 miles away. This is a long distance for such delicate spores to be carried, and it is remarkable that they could succeed in hitting a target as small as the experimental plot, which contained only 29 sets. The average yearly rainfall at Clonakilty is 109 cm., but the summer of 1937 was exceptionally wet, the July rainfall being about 11 cm.

Southern Rhodesia: Locust Invasion, 1932-1937 *

Monthly Report No. 60. November, 1937.

Winged swarms of the Red Locust (*Nomadacris septemfasciata*, Serv.) have been present in the Colony throughout the month, reports having been received from the following districts:— Melsetter, Umtali, Marandellas, Makoni, Mrewa, Inyanga, Salisbury, Mazoe, Darwin, Hartley, Gwelo, Selukwe, Chilimanzi, Sebungwe, Victoria, Gutu, Bulawayo, Umzingwane, Matobo, and Insiza.

The size of the swarms has varied from 'small' to 'very large'. No definite trend of direction is indicated by the reports.

Specimens received at headquarters indicate that the swarms have not yet attained the egg-laying stage.

In certain localities large numbers of Storks (two species) and Kites are stated to have been following the swarms closely.

Specimens of locusts picked up dead have been examined but no trace of disease or parasites has been found.

Damage to early grass and fruit trees has been reported in two localities.

The general position has been very similar to that obtaining during November last year.

Italian Somaliland: Locusts †

No locusts were reported in the Colony during the month of December, 1937.

* Communication from the official correspondent of the Institute, Mr. RUPERT W. JACK, F. E. S., Chief Entomologist, Department of Agriculture, Salisbury, Southern Rhodesia.

† Communication from Dr. LUIGI BOZZI, Acting Chief of the Agricultural Bureau of Somaliland, Mogadiscio, transmitted to the Institute by the Government of the Colony.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Germany (Saxony). — By Notification of 21 September, 1937, a form is given of the certificate now required to be issued by potato dealers to buyers of plants resistant to wart disease [*Synchytrium endobioticum*]. (*Ämtliche Pflanzenschutzbestimmungen*, Berlin, 1. Oktober 1937, Bd. IX, Nr. 7, S. 149-150).

* * By Notification No. 934 of 12 October, 1937, the authorities in charge of hunting regulations are advised that they are to take means to destroy blackbirds. The city administrative authorities are requested to cause the blackbirds in public parks to be destroyed. The blackbirds being considered as game-birds according to the terms of the Law on hunting of 3 July, 1934, all persons engaged in their destruction must be provided with a shooting licence. (*Nachrichtenblatt für den Deutschen Pflanzenschutzdienst*, Berlin, Anfang November 1937, 17. Jahrg., Nr. 11, S. 92).

Argentine Republic. — By Decree No. 105.624 of 12 May, 1937 fruit flies (*Trypetidae*) are declared a pest to agriculture. (*Boletín Oficial de la República Argentina*, Buenos Aires, 13 de septiembre de 1937, año XLV, núm. 12.950, pág. 11193).

* * By Decree No. 108.927 of 10 July, 1937, the purchase of 30,000 flame-throwers for use in the control of the South American locust [*Schistocerca paranensis*] is authorized. (*Ibid.*, 17 de diciembre de 1937, núm. 13.028, pág. 15666).

Brazil. — By 'portaria' No. 4.933 of 28 September, 1937, are declared to be infested by 'bichos das frutas' (*Ceratitis*, *Anastrepha*, *Lonchaea* spp. and *Gymnandrosoma aurantianum*) the citrus-growing zones of the country, and to these zones are applied the regulations in force relative to the prevention and control of the aforesaid plant pests as well as to the transit of plants and parts of plants. (*Diário Oficial*, [Rio de Janeiro], 5 de novembro de 1937 anno LXXVI, n. 254, pag. 22089).

Colombia. — By Decree No. 1291 of 12 July, 1937, the measures issued by the 'Jefatura de Sanidad Vegetal' of the Ministry of Agriculture and Commerce and the 'Dirección' of the Armero Experiment Farm, relative to cotton cultivation, are to be considered as police and public health measures in the Departments of Cundinamarca and Tolima. (*Diário Oficial*, Bogotá, 23 de octubre de 1937, año LXXIII, núm. 23612, pag. 152).

Italy. — By the Royal Decree Law of 27 October, 1937, the sale of lubricating mineral oils employed in the manufacture of products utilized in the control of fruit tree pests is exempt from tax. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 1º dicembre 1937, anno 78º, n. 278, p. 4347).

New Zealand. — By special order made by the Eketahuna County Council on 3 September, 1937 and published by the Minister of Agriculture on 8 November, 1937, gorse [*Ulex europaeus*] has been declared to be a noxious weed within the County of Eketahuna. (*The New Zealand Gazette*, Wellington, November 11, 1937, Numb. 74, p. 2472).

* * A special order made by the Tapanui Borough Council on 8 November, 1937 and published by the Minister of Agriculture on 16 November, 1937, establishes that all plants mentioned or included in the Second Schedule to the Noxious Weeds Act, 1928, be declared to be noxious weeds within the Borough of Tapanui. (*Ibid.*, November 18, 1937, Numb. 76, p. 2531).

Peru. — By supreme 'Resolución' of 14 August, 1937, the fruit fly (*Anastrepha* sp.) is declared to be a pest to national agriculture.

The Lima Valley is declared control zone for this pest.

Proprietors or holders of orchards, rural or urban, of Lima Valley (Ate, Lurigancho, Boca Negra, Surco, Piedra Liza, Magdalena, Maranga, and La Legua) are obliged to control this pest by carrying out the regulations indicated in the above-mentioned 'Resolución' (*El Peruano*, Lima, 28 de septiembre de 1937, año 97, tomo II, trimestre III, núm. 216, pág. 905).

* * By supreme 'Resolución' of 16 August, 1937, the regulation for the application of the supreme 'Resolución' of 14 August, 1937, is approved. (*Ibid.*, 18 de octubre de 1937, trimestre IV, núm. 232, pág. 969).

* * By supreme 'Resolución' of 27 August, 1937, the organization of the campaign for the control of the fruit fly in the Departments of Tacna and Moquegua is approved. (*Ibid.*, 26 de octubre de 1937, núm. 239, págs. 997 y 998).

Tunis. — By Decree of 10 June, 1937 (I rebia 11 1936) the agriculturists registered on the 'canoun' tax roll regarding olive trees in Tunis are formed into a obligatory Syndicate denominated the 'General Obligatory Syndicate for the Protection of the Olive-tree' and established at the Department of Economic Affairs, Tunis.

This Syndicate is required, under the control of the Administration, to carry out health inspection of the olive-trees, the study of pests and diseases, the control of these pests and diseases and particularly the destruction of starlings [*Sturnus vulgaris*].

The activities of the Syndicate apply throughout the Regency. (*Journal Officiel Tunisien*, Tunis, 15 juin 1937, 55^e année, n^o 48, p. 789-790).

Uruguay. — The Decree No. 1075/937 of 17 August, 1937 authorizes the Ministry of National Defence to acquire direct, because urgently required, barriers, apparatus, accessories and other requisites necessary in the control of the

South American locust [*Schistocerca paranensis*], for which purpose a loan of six hundred thousand 'pesos' will be obtained from the Bank of the Republic.

The material will be supplied at cost price to the local farmers requiring same, the amount to be paid in full and in cash. Any remaining material not purchased by private individuals will be utilized by the State for hiring out on loan to rural workers, who owing to their economic position, duly verified, are unable to purchase the said material. (*Diario Oficial*, Montevideo, 8 de septiembre de 1937, tomo 128, núm. 9309, pág. 468-A).

* * Decree No. 684/935 of 26 August, 1937, establishes in each Departmental capital, on the coast or in the interior of the Republic, an honorary Commission nominated Departmental Commission for the control of 'abrojo grande' (*Xanthium macrocarpum* [= *X. canadense*]), which shall be engaged solely in the elimination of the said weed in the Department in which it operates [see also this *Bulletin*, 1937, No. 9, p. 207]. (*Ibid.*, págs. 469-A y 470-A).

* * By Law of 17 September, 1937 the sum of eighty-two thousand and five hundred 'pesos' is authorized for the manufacture and purchase of flame-throwers for locust control. (*Ibid.*, 25 de septiembre de 1937, núm. 9324, pág. 585-A).

* * Decree No. 380/935 of 29 September, 1937 regulates the trade in insecticides and fungicides for use in agriculture. (*Ibid.*, 20 de octubre de 1937, tomo 129, núm. 9344, págs. 106-A y 107-A).

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NOTES

Award of the Maynard Ganga Ram Prize. — In 1925 the late Sir Ganga Ram, Kt., C. I. E., M. V. O., Lahore handed to the Punjab Government a sum of Rs. 25,000 for the endowment of a prize to the value of Rs. 3,000 to be called the Maynard Ganga Ram Prize and to be awarded every three years, for a discovery, or an invention, or a new practical method which will tend to increase agricultural production in the Punjab on a paying basis. The competition is open to all throughout the world. Government servants are also eligible to compete for it.

The latest award has now been made by the Managing Body to the official correspondent of the International Institute of Agriculture, Mr. R. S. L. Jai Chand Luthra, I. A. S., Professor of Botany, Punjab Agricultural College, Lyallpur, for his new method of treating wheat seed in order to free it from the loose smut (*Ustilago tritici*). This disease is present in most parts of the province and causes considerable loss to cultivators. The old method of treatment involved the use of a thermometer and required skill

and accuracy in raising water to a temperature which was sufficient to kill the spores of the fungus inside the wheat grain and yet not damage the germinating power of the grain. Consequently, the method was unsafe in the hands of unskilled and illiterate people.

By R. S. L. Jai Chand Luthra's method the use of a thermometer is rendered unnecessary. The wheat seed to be treated is merely soaked in water at ordinary temperature for four hours during the morning of a day in summer. Thereafter the soaked grain is spread in the sunshine till it is thoroughly dried. Experience has shown that this treatment is effective in controlling the disease without damaging the germinating power of the seed. It can be carried out safely by any illiterate worker.

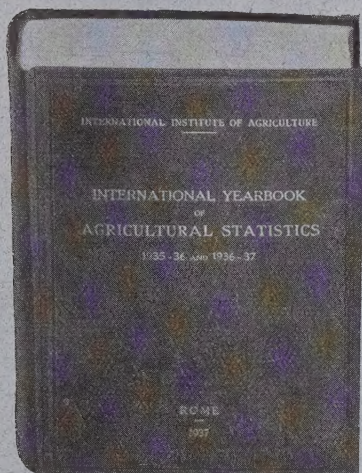
Entries for the next award should reach the Director of Agriculture, Punjab, Lahore, on or before the 31st December, 1938.

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